Dairy Situation

Economic Research Service

U.S. Department of Agriculture

DS-366

July 1977

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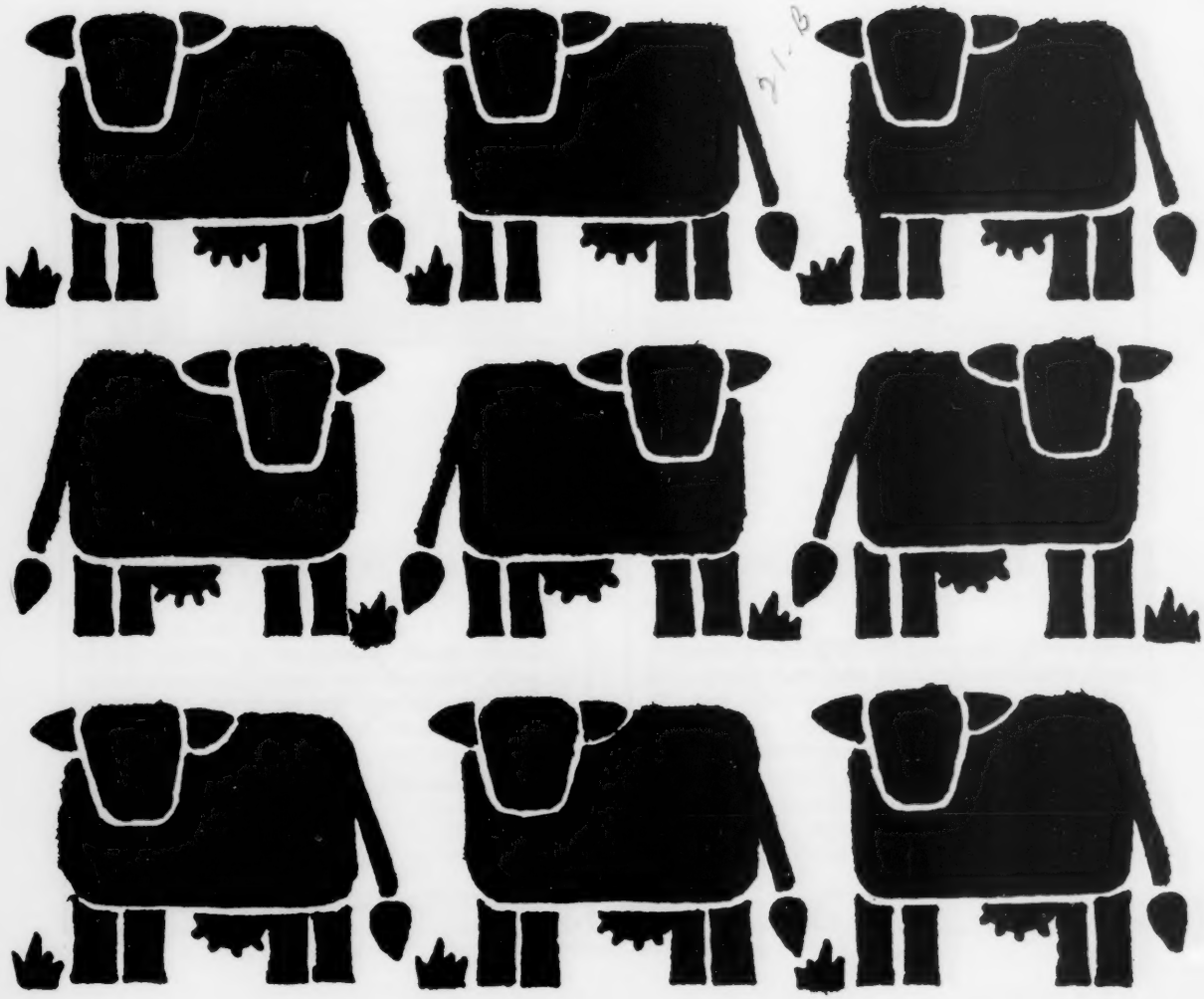

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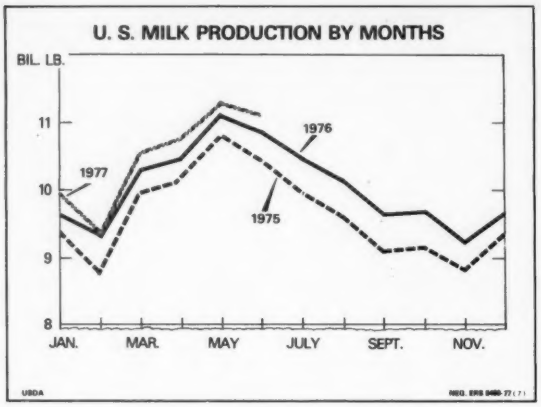
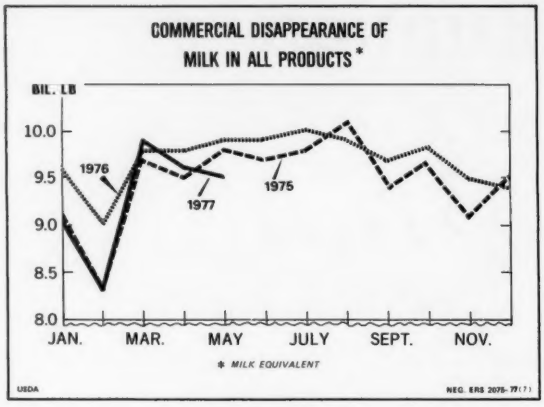


Figure 1



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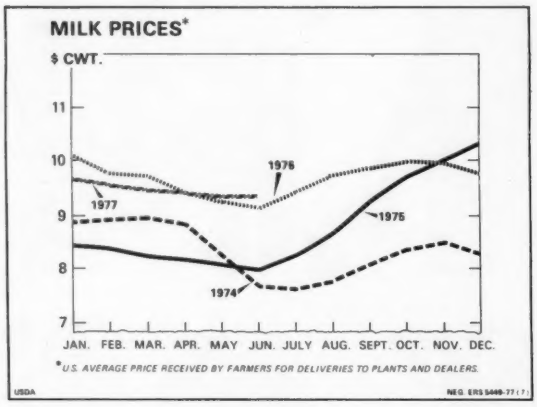

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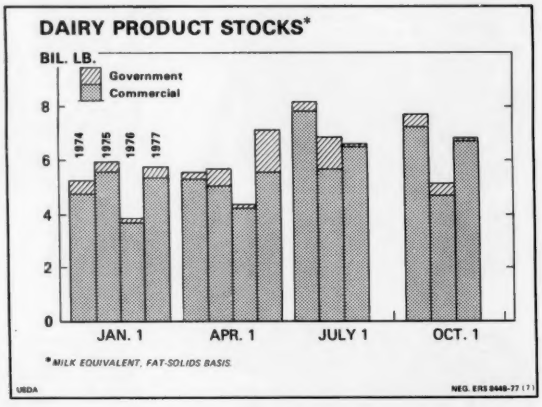

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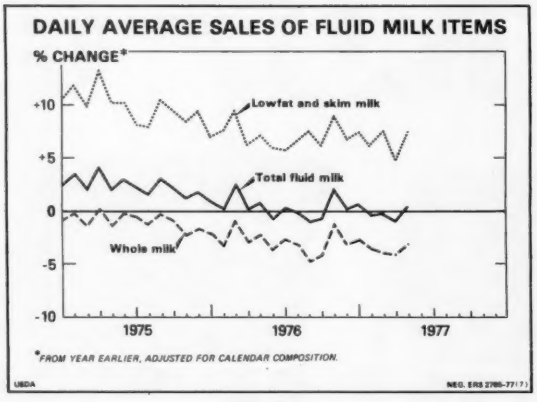

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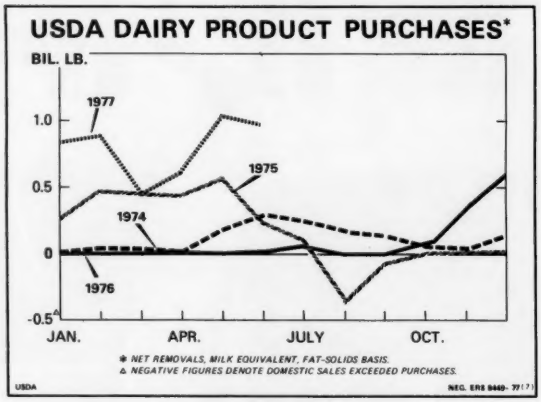

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SUMMARY

Very heavy milk output, large commercial stocks, and lackluster commercial use resulted in the largest spring surplus of dairy products in 5 years. USDA removals during April-June were equivalent to 2.6 billion pounds of milk—mostly in the form of butter although American cheese purchases were the largest in a decade. Purchases of nonfat dry milk were also quite heavy although less than 2 years ago. Removals of all 3 products probably will be substantial until fall.

Milk production during the spring flush was the largest since 1966, even though the seasonal peak was less pronounced and the year-to-year gains had eased from earlier in the year. Sustained high levels of concentrate feeding resulted in substantial increases in output per cow. Higher farm milk prices held milk cow numbers to only small declines because there was not much stimulus for heavy culling.

Recent weakness in feed prices and current expectations of large feed crops this fall point to fairly favorable milk-feed price relationships during the second half of 1977. These conditions probably will lead to increased concentrate feeding and fairly strong year-to-year increases in output per cow. With no substantial sharpening of declines in milk cow numbers expected, milk production probably will continue to post gains from a year ago. If, as now anticipated, milk production

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about parallels last year's second-half surge, output in 1977 will total about 2 percent higher than 1976.

Manufacturing grade milk prices during April-June were almost flat—running about 26 cents per 100 pounds below the support level when adjusted for fat test. The very heavy supplies to be manufactured sharply dampened competition for milk among plants. The weakness on the manufacturing side has held down the average price of all milk, as farmers received $9.37 per 100 pounds of milk in June, up only 23 cents from a year ago. With the recent increases in barrel cheese prices (in response to CCC's offer to buy such cheese in commercial containers) and milk supplies subsiding seasonally, farm milk prices should move close to support levels, where they are likely to remain during much of the rest of 1977.

Retail prices of milk and dairy products in 1977 are now expected to average 3-4 percent higher than 1976. The sluggish adjustment of farm prices has slowed the rise in retail prices.

Manufactured dairy products used about 6 percent more milk during April-May than a year ago. Most of the increase went into butter-powder production. Cheese output was only slightly larger and production of other products was generally somewhat smaller. Sluggish sales and a troublesome oversupply of barrel cheese have diverted milk from American cheese production into butter-powder plants. Although still large, American cheese output fell below a year earlier in June for the first time in 20 months.

Commercial use of milk and dairy products was slow this spring as butter sales were down sharply from a year ago, fluid use was slightly lower, and cheese sales were about the same. Commercial use of milk and dairy products may recover under the generally favorable retail price and consumer income conditions expected during the second half of the year.

Commercial stocks of both milkfat and solids-not-fat on June 1 were up sharply from the two prior years but still somewhat less than 1974. Record-high holdings of American cheese accounted for most of the boost as firms found it difficult during the flush season to bring them into line with commercial needs. Commercial interests probably will attempt to keep any further rises as small as possible.

Dairy trade with foreign countries this spring was generally similar to a year ago. Thus far this year, slightly more products have been imported, exports have been slightly smaller, and shipments to U.S. territories have been a little larger.

Surplus conditions in world dairy markets this spring were little different from a year ago. This meant that world supplies were still very heavy and no improvement is in sight.

DAIRY SITUATION

SITUATION AND OUTLOOK

PRODUCTION

Seasonal Peak in Milk Output Fairly Flat

Milk production in June was almost 3 percent above a year ago, the largest June output since 1966 and the 21st straight month of increases from a year earlier. However, milk output showed a very flat seasonal peak again this spring for the second straight year and the year-to-year increases have slowed substantially since last fall.

U.S. milk production

Month	1976	1977	Change
	Million pounds	*Million pounds*	*Percent*
January	9,607	9,910	+3.2
February	9,308	9,351	[1] +4.1
March	10,302	10,562	+2.5
April	10,480	10,741	+2.5
May	11,108	11,295	+1.7
June	10,816	11,103	+2.7
July	10,453		
August	10,112		
September	9,616		
October	9,643		
November	9,233		
December	9,678		
Total	120,356		

[1] On a daily average basis.

Milk production during the first half of 1977 totaled 63 billion pounds, the largest production since 1966 and up over 2 percent from 1976.

Milk production per cow in June, at 1013 pounds, was 34 pounds above last June. The 3-percent increase resulted from fairly favorable milk-feed price relationships and continued heavy grain feeding. These output gains had eased substantially from last fall's 6-percent increases as milk-feed price relationships during the first half had not been sufficiently favorable to maintain the sharp expansion of concentrate feeding. However, feeding rates may be picking up as farmers fed 5 percent more concentrates per cow on July 1 than a year ago.

The number of milk cows on farms continued to decline slowly in June and was about 0.7 percent below year-earlier levels. Milk cow numbers dropped 60,000 head during January-June, compared with declines of only 39,000 during the same period of 1976 and 61,000 two years ago. Slaughter cow prices held at about $26-27 throughout most of May and early June before declining slightly in mid-June. These prices have been below a year earlier and, along with large numbers of replacement heifers and slightly higher milk prices, have helped to limit declines in milk cow numbers.

Utility cow prices, Omaha

Month	1975	1976	1977
	Dollars per cwt.		
January	16.82	23.26	22.95
February	18.18	25.90	23.88
March	19.45	27.45	26.67
April	21.67	30.72	27.63
May	23.55	30.24	26.57
June	23.32	27.47	25.64
July	22.00	25.80	
August	21.29	25.10	
September	22.45	22.90	
October	22.01	22.72	
November	20.73	20.59	
December	21.64	21.60	
Average	21.09	25.31	

The June gains in milk production were widespread as all production regions except the Southeast and Mountain reported increases, led by 4-percent rises in the Lake States, Pacific, and Appalachian regions.

In the five major dairy States, June milk production was more than 3 percent above last June—led by Minnesota's 5-percent increase. Only 5 of the 33 States which report monthly showed production lower than a year ago.

Production To Be Strong

Milk prices and feed prices continue to be major elements in the outlook for milk production during the rest of 1977. Expected milk-feed price relationships point to milk output remaining above last year's surging production; gains probably will average about 2 percent for the year.

Farm milk prices should move close to support level, as milk supplies subside seasonally, and average above 1976 levels. Recent weakness in feed prices and expectations of large crops this fall reinforce the output-bolstering impacts of the higher milk price. While feed prices will continue sensitive to weather and other new-crop developments, the resulting milk-feed price relationships probably will be favorable enough to sustain a high level of concentrate feeding and relatively normal increases in output per cow.

Declines in milk cow numbers are likely to remain relatively small as higher milk prices, lower feed prices, and the large number of replacement heifers offset the effects of expected higher cull cow prices (from the current low levels) and improved off-farm opportunities. If feed prices unexpectedly increase later in the year or culling increases, milk production could slip below 1976 by yearend but probably would stay at fairly high levels.

Milk-feed price ratio[1]

Month	1975	1976	1977
		Pounds	
January	1.25	1.65	1.50
February	1.30	1.58	1.48
March	1.33	1.58	1.47
April	1.31	1.53	1.46
May	1.30	1.49	1.43
June	1.30	1.43	1.49
July	1.34	1.44	
August	1.36	1.50	
September	1.48	1.51	
October	1.56	1.56	
November	1.66	1.60	
December	1.70	1.55	
Average	1.40	1.53	

[1] Pounds of concentrate ration equal in value to 1 pound of milk.

Feed Prices Slip

Although fluctuating daily, feed prices have generally slipped during the past 2 months. Farmers paid an average $149 per ton for 16 percent protein dairy ration in June, down $3 from May but about 4 percent above a year ago. Prices of principal dairy ration ingredients—corn and soybean meal—generally decreased during May and June. Corn prices at Chicago (No. 2 yellow) in mid-July were about $2.00-$2.20, down 30 cents from early May and down 80 cents from a year earlier. Soybean meal at Decatur was $150-$180 per ton, down substantially from as high as $295 in April and well below year-earlier levels.

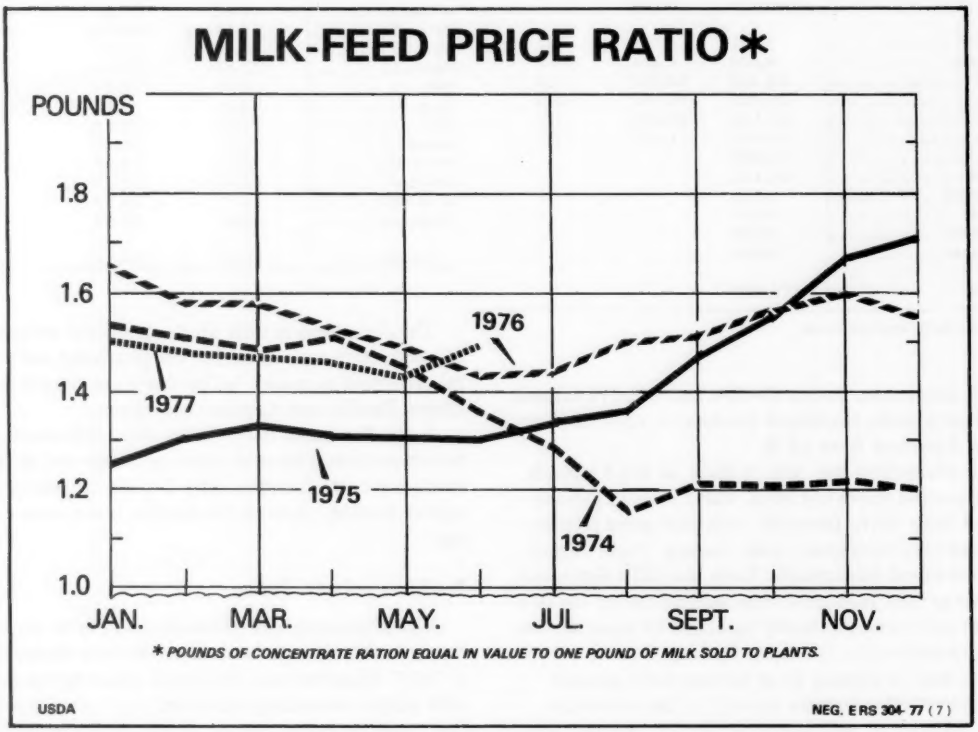

Figure 7

The lower feed prices combined with slightly higher milk prices have resulted in milk-feed price relationships more favorable to dairy farmers than a year earlier. In June, a pound of milk was equal in value to 1.5 pounds of feed, up from 1.4 last June (figure 7). The difference in value of 100 pounds of each was $3.08, up from $2.75 a year earlier.

The Nation's corn crop was forecast at 6.3 billion bushels on July 1, 2 percent above the record 1976 production. This year's much larger soybean acreage was generally planted early. Recent moisture in the Midwest has been beneficial to both crops but subsoil moisture reserves are still short. If a dry spell were to develop, it would quickly put crops under stress.

Pastures started out on a generally poor note this year and have remained generally poor to fair—although quite varied even within regions. Rated at 68 on July 1, pasture feed conditions were 7 points below a year ago and 16 points below the 1966-75 average for that date.

Farmers plan to harvest hay from about 61.7 million acres this year, about 1 percent more than in 1976, as high hay prices have encouraged larger acreage. May 1 hay stocks totaled 19.6 million tons, 23 percent less than a year ago. This was primarily due to the extremely cold winter in most of the country and low hay production in 1976. Famers paid $76 per ton for baled alfalfa hay in June, up about $5 from a year ago but seasonally down about $5 from last winter.

PRICES AND INCOME

Farm Milk Prices Below Support

Manufacturing grade milk prices (at actual fat test) averaged only $8.60 per 100 pounds during April-June. This was 26 cents below the support level when adjusted for fat test. No significant strengthening occurred during the quarter. Similarly, the Minnesota-Wisconsin price (which generally runs about a dime above the U.S. average) was 18 cents below the support level.

Milk prices received by farmers

Month	All sold to plants			Manufacturing grade		
	1975	1976	1977	1975	1976	1977
	Dollars per 100 pounds					
January	8.43	10.10	9.65	6.97	9.04	8.48
February	8.38	9.76	9.54	7.02	8.42	8.41
March	8.22	9.75	9.43	7.03	8.49	8.46
April	8.18	9.40	9.43	7.06	8.45	8.66
May	8.07	9.25	9.34	7.07	8.33	8.60
June	7.99	9.14	9.37	7.09	8.32	8.55
July	8.25	9.43		7.27	8.62	
August	8.64	9.70		7.63	8.89	
September	9.25	9.84		8.25	8.65	
October	9.70	9.96		8.77	8.54	
November	10.00	9.89		9.01	8.54	
December	10.30	9.72		9.30	8.53	
Average	8.75	9.66		7.63	8.56	

Prices of milk for manufacturing were depressed by the very heavy supplies. With most plants operating at or near capacity this flush season, there was relatively little competition for milk supplies. In addition, milk from outside the heavy manufacturing areas has been shipped there to be manufactured. The supply-induced disruption of normal marketing conditions probably was the most important reason for the failure of manufacturing grade milk prices to reach support level. The depressed prices of barrel cheese (to a certain extent a reflection of this supply clearance problem) probably also contributed. With the recent rises in barrel cheese prices following USDA action, this pressure has been greatly alleviated.

American cheese and butter-powder operations paid about the same for milk of equivalent fat test during April-May. Plants producing butter-powder or block cheese were in an advantageous position relative to barrel cheese producers from mid-May until barrel cheese prices rose in July. American cheese and butter-powder operations probably will pay about the same amount in coming months.

Farmers received an average $9.37 per 100 pounds in June, up 23 cents from a year ago. The average price of all milk has slipped slightly since March. The incompleteness of the adjustment to the current support level was reflected in the price of milk for fluid use as well as milk for manufacturing use.

Minimum Class I prices in Federal Order markets will average $10.70 per 100 pounds in August, up 28 cents from 1976 but the same as June. It will be at least early fall before minimum Class I prices fully reflect the $9.00 support level.

Federal Order minimum Class I prices increased 46 cents per 100 pounds between April and July. Prices negotiated by cooperatives with the processors they serve (which may include charges for services rendered by the cooperative) have also gone up, but by smaller amounts. As a result, Class I over-order payments—the amount that negotiated prices exceed order minimums—dropped 15 cents to an estimated average of 30 cents in July. They had been averaging close to 45 cents earlier this year.

During January-June, over-order payments averaged higher than the same period in 1976, as negotiated Class I prices did not average as much below year-earlier levels as did minimum prices.

On an annual basis, over-order payments have been declining since peaking at an average of 65 cents in 1974. They slipped to 62 cents in 1975 and dropped sharply to an average of 34 cents in 1976.

Farm milk prices should move close to support level, reflecting higher barrel cheese prices, milk supplies subsiding seasonally, and normal competive forces coming into play. In fact, the anticipated second half supplies of milk would allow plants to operate at higher-than-normal summer and fall levels and therefore more efficiently. Seasonal strength due to stronger wholesale

prices is much less certain. Unless sales spurt or milk output weakens substantially, any fall rises in basic price levels likely will be relatively small and of short duration.

Cash Receipts Move Higher

Cash receipts from dairying during the second quarter were up about 4 percent from a year earlier, with larger marketings and higher milk prices contributing about equally. During the rest of 1977, cash receipts likely will average above year-earlier levels and the total for the year could exceed 1976's $11.4 billion by 3-4 percent.

The index of prices paid for production items during April-June was about 5 percent higher than a year ago. This indicates that the net income picture for dairymen probably has weakened from the relatively favorable conditions of 1976. Later this year, net income may compare more favorably, particularly if feed costs decline.

Wholesale Prices Steady

The combination of heavy supplies and sluggish sales have resulted in wholesale dairy product prices holding steady at support levels. The chances of any substantial movement are fairly small through this summer.

Grade A butter in Chicago was traded at the support price in mid-July, down about 6 cents per pound from a year earlier. Similarly, 40-pound blocks of American cheese at Wisconsin assembly points were selling close to the 98-cent support purchase price, down about a penny from a year ago. It was during June-July 1976 that wholesale prices shot up rapidly, before starting to break in August (figure 8).

Barrel cheese prices present a somewhat different picture. At Wisconsin assembly points, barrel cheese prices averaged 93½ cents per pound during April and early May. By late June, prices had declined more than 5 cents and the average diffential between barrel and block styles was about 9 cents, equaling the very wide differentials of January 1976. Since then, the temporary offer by CCC to buy cheese in commercial steel and fiber barrels had lifted barrel cheese prices about 4½ cents to 93 cents per pound in mid-July.

Among dry products, the average price of nonfat dry milk has moved close to the support purchase price after the inventories of powder produced before April 1 were worked off. The higher nonfat dry milk prices have helped boost the prices of other dry products. Dry buttermilk prices in mid-July had risen about 7 cents per pound since March, while edible dry whey

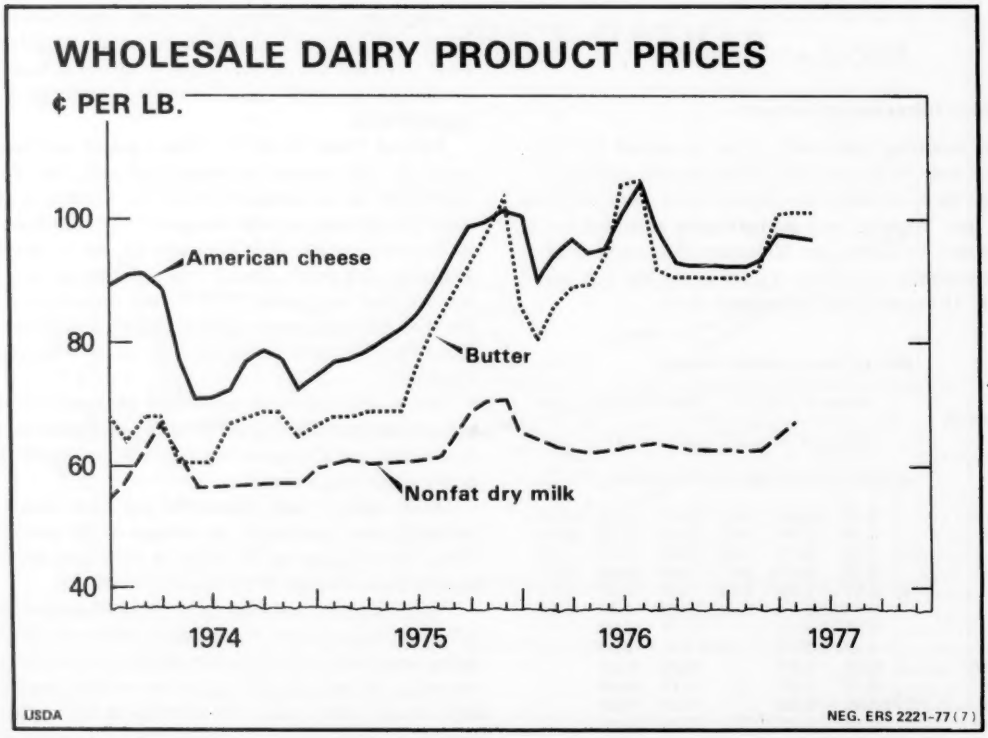

Figure 8

was quoted at about 10 cents per pound (Central States production area), up 2 cents from March.

Tightening world supply conditions have resulted in higher casein prices. In mid-July, Oceanic edible casein was quoted at about 63 cents per pound, while U.S. converted caseinates sold in the 81-87 cent range.

Manufacturers' average selling price for evaporated milk was $13.98 per case in May, up slightly from a year ago. Wholesale prices for ice cream in June were about 9 percent higher than 1976.

The wholesale dairy price index, as reported by the Bureau of Labor Statistics (BLS), stood at 174.3 in June, up about 4 percent from a year ago. This index probably will be fairly stable in coming months.

Retail dairy product prices

Item	Unit	May 1975	May 1976	March 1977	May 1977
All dairy products	1967=100	153.6	167.4	171.2	173.1
Butter	c/lb.	95.3	120.6	127.4	133.8
Processed American cheese	c/½-lb.	74.2	85.7	84.3	85.7
Ice cream	c/½-gal.	121.5	125.3	131.2	134.7
Whole milk: At stores	c/½-gal.	77.4	82.0	83.5	83.5
Evaporated milk	c/can	30.4	34.1	35.2	36.0
Skim milk: At stores	c/qt.	41.9	44.5	45.6	45.7

Retail Prices Rise

Retail prices of milk and dairy products have risen this spring. However, these rises have been slowed by the sluggish adjustment of farm milk prices to the new support price and it now appears as though the 1977 average will be 3-4 percent above 1976.

The BLS index of retail dairy prices stood at 173.1 (1967=100) in May, up more than 3 percent from a year earlier. This was only about half the rise of all food prices. The May increase in dairy prices from a year earlier was the largest this year and the difference probably will widen slowly during the rest of 1977.

All of the March-May rise in retail prices was due to higher prices for manufactured dairy products (figure 9). About half or more of the rise in wholesale dairy product prices had been reflected in the supermarkets by May and the adjustment probably was fairly well over by the start of summer. Fluid milk prices at retail were flat during January-May. They likely are now rising to a summer plateau and probably will post another small increase this fall. These changes are expected to reflect changes in Class I prices fairly closely.

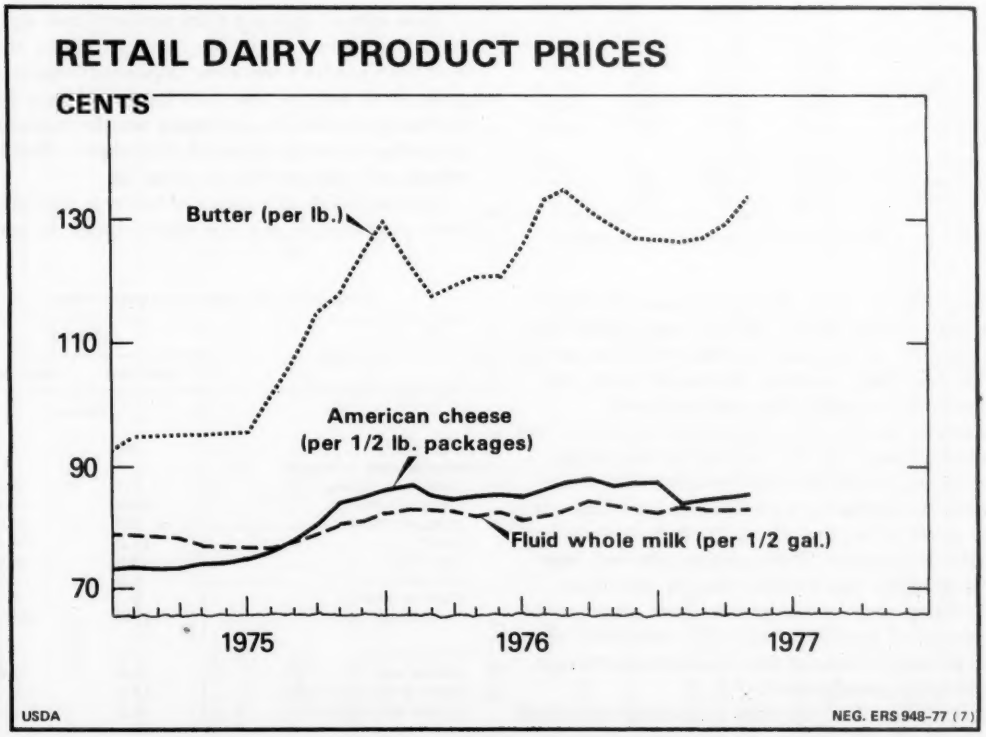

Figure 9

UTILIZATION

Cheese Output Eases

Sluggish sales and a troublesome oversupply of barrel cheese pushed American cheese output below a year ago as spring drew to a close. Preliminary estimates place the still-heavy American cheese production in June about 3 percent below a year earlier, the first such drop since November 1975. The small June drop followed small increases in April-May and large increases during 1976 and the first quarter of 1977. Output of other-than-American types also posted small gains in April-May.

The gradual slowing in cheese production has pushed enough milk into butter-powder operations to keep the rate of increase in butter output fairly stable. Thus far this year, butter production has ranged between 9 and 15 percent higher than 1976. The increases in nonfat dry milk output have generally been slightly larger.

Production of selected manufactured dairy products, 1976-77

Item	January-May		Change from year earlier	
	1976	1977[1]	1976	1977[1]
	Million pounds	*Million pounds*	*Percent*	*Percent*
Butter	445.9	504.6	-9.8	+13.2
Cheese:				
American	862.4	914.7	+20.4	+6.1
Other	511.2	531.7	+11.6	+4.0
Cottage, creamed	372.2	376.5	+1.0	+1.2
Canned milk	415.8	361.9	+8.0	-13.0
Dry whole milk	37.3	34.0	+66.5	-8.8
Ice cream (Mil. gal.)	326.6	316.1	-.2	-3.2
Milk equivalent[2]	27,015	28,663	+3.5	+6.1
Nonfat dry milk	405.5	457.9	-19.8	+12.9

[1] Preliminary [2] Total all reported manufactured products.

Among other products, this spring's output of both canned milk and dry whole milk was considerably lower. Edible dry whey production was about the same but less modified dry whey products, condensed whey, and whey products for animal feed were produced.

The smaller increases in milk production have not yet resulted in an easing of the year-to-year rises in the amount of milk used for manufacturing. The milk equivalent of manufactured products in April-May was 6 percent above a year ago, about the same increase as during the first quarter. These supplies were very large and the problem was compounded in the major manufacturing areas by inshipments from areas unable to process all of their own milk. Milk reportedly was shipped from the Northeast into the Midwest and even the south to be manufactured.

Output of manufactured dairy products probably will be heavy in coming months, as milk production is expected to remain above a year earlier and fluid sales are not expected to pick up sharply. However, the seasonal downturn in milk supplies is easing the capacity strains and marketing channels will revert to more normal conditions. The relative output of butter-powder and cheese plants will be influenced by the relative ease of sales to CCC as well as by commercial market conditions.

Wisconsin out-of-state milk shipments

Month	1976		1977	
	Loads	Volume	Loads	Volume
	Number	*Thousand pounds*	*Number*	*Thousand pounds*
January	475	22,325	206	9,682
February	176	8,272	163	7,661
March	67	3,149	59	2,773
April	20	940	6	282
May	39	1,833	1	47
June	30	1,410	28	1,316
July	27	1,269		
August	42	1,974		
September	293	13,771		
October	192	9,024		
November	283	13,301		
December	214	10,058		
Total	1,858	87,326		

Commercial Use Sluggish

Slow sales of milk and dairy products have aggravated this spring's surplus. April-May commercial use of milk in all dairy products was about 3 percent below a year ago (table 1) and the lowest for the period since 1974. The decline in total disappearance was the result of sharp drops in butter sales and slight slips in fluid sales, without offsetting growth in cheese use.

Commercial disappearance of butter in April-May was down 15 percent from a year earlier, about the same

Changes in dairy sales from year earlier

Item	Change[1]	
	Jan.-Mar.	Apr.-May
	Percent	
Total milk[2]	-3.0	-3.1
Manufactured products:		
American cheese	+.7	-2.2
Other cheese	+4.9	+3.6
Cottage cheese[3]	+.7	+1.9
Butter	-14.2	-14.6
Ice cream	-3.5	-2.8
Ice milk	+.8	+4.1
Canned milk	-9.1	-6.2
Nonfat dry milk	+10.3	-35.6
Fluid products:	+.1	-.3
Whole milk	-3.5	-3.6
Skim and lowfat milk	+6.9	+6.1
Cream and mixtures	-6.2	N.A.

[1] On a daily average basis. [2] On a milk equivalent, fat-solids basis. [3] Creamed and low-fat.

Table 1--Commercial disappearance: Total milk, annual and by quarters, 1975-77 1/

Item	1975	1976					1977 2/				
		By quarters					By quarters				
		1st	2nd	3rd	4th	Annual	1st	Apr.-May	3rd	4th	Annual
	Billion pounds										
Production	115.3	29.2	32.4	30.2	28.6	120.4	29.8	22.0			
Farm use	3.2	.8	.8	.8	.8	3.1	.7	.5			
Marketings	112.1	28.4	31.6	29.4	27.8	117.3	29.1	21.5			
Beginning commercial stocks	5.6	3.7	4.2	6.5	6.7	3.7	5.3	5.5			
Imports	1.7	.4	.4	.4	.7	1.9	.5	.2			
Total supply	119.4	32.5	36.2	36.3	35.2	122.9	34.9	27.2			
Ending commercial stocks	3.7	4.2	6.5	6.7	5.3	5.3	5.5	6.5			
Net removals	2.0	4/	.1	.1	1.1	1.2	2.1	1.6			
Commercial disappearance											
Actual	113.6	28.3	29.6	29.6	28.8	116.4	27.2	19.1			
Percent change 3/	+.5 5/	+3.6	+5.8	+1.0	+2.0	+2.5 5/	-3.0	-3.1			

1/ Milk equivalent, fat solids basis. Totals may not add due to rounding. 2/ Preliminary. 3/ From year earlier using unrounded data. 4/ Less than 50 million pounds. 5/ On a daily average basis.

Table 2--Commercial disappearance: Selected dairy products, United States, annual 1968-76, by quarters, 1976-77

Year and quarter	Butter 1/	Cheese		Nonfat dry milk	Canned milk	Frozen products 3/
		American 2/	Other			
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. gal.
1968	976.0	1,213.3	803.0	1,058.0	1,496.8	1,082.3
1969	921.9	1,281.0	861.6	1,042.1	1,376.1	1,092.2
1970	898.2	1,398.0	909.1	983.2	1,213.8	1,097.3
1971	847.1	1,454.8	987.0	981.8	1,186.9	1,102.4
1972	885.4	1,595.7	1,127.8	919.2	1,102.6	1,108.6
1973	855.6	1,677.1	1,210.2	1,110.1	1,056.7	1,118.6
1974	929.9	1,780.6	1,276.5	809.9	999.5	1,128.0
1975	951.0	1,717.1	1,331.9	697.0	923.9	1,183.9
1976	919.0	1,934.5	1,460.7	724.0	862.4	1,152.7
1976-1st	246.8	463.5	337.2	181.8	222.9	253.4
2nd	213.9	493.1	359.7	194.1	204.8	326.2
3rd	211.5	479.9	367.3	199.1	206.2	340.5
4th	246.7	498.1	396.4	149.0	228.5	232.7
1977-1st	209.5	461.4	350.0	198.2	200.7	246.8
Apr.-May	120.5	322.0	243.0	86.2	126.3	202.3
3rd						
4th						
	1976-77 percent change					
	Percent					
1st 4/	-14.2	+.7	+4.9	+10.3	-9.1	-1.6
Apr.-May	-14.6	-2.2	+3.6	-35.6	-6.2	-.9
3rd						
4th						

1/ Imports include butter equivalent of butteroil. 2/ Imports include Colby cheese; stocks do not include processed cheese. 3/ Excludes Mellorine. 4/ On a daily average basis.

Table 3--Milk and dairy products sales (domestic disappearance, commercial sources) total and per capita, selected years, United States, 1965-76 1/

Year	Fluid milk product sales					Butter	Cheese			Evaporated and condensed	
	Fluid whole milk	Cream 2/	Low-fat milk 3/	Total			Whole and part skim milk 5/		Cottage cheese 6/	Whole milk	Skimmed and butter-milk
				Product weight	Whole milk equivalent 4/		American	Other			
	Million pounds										
	Total										
1965	45,829	1,296	5,972	53,097	55,400	1,122	1,106	653	901	2,092	967
1970	42,956	1,067	10,289	54,312	52,000	902	1,393	892	1,060	1,349	1,016
1971	42,108	1,076	11,485	54,669	51,800	878	1,452	971	1,108	1,303	1,039
1972	41,851	1,093	12,826	55,770	53,220	861	1,573	1,110	1,133	1,236	980
1973	40,443	1,130	14,062	55,635	52,400	846	1,661	1,193	1,103	1,194	894
1974	38,358	1,143	14,815	54,316	50,500	917	1,771	1,267	992	1,154	732
1975	38,254	1,175	16,577	56,006	50,800	948	1,692	1,317	1,006	1,097	761
1976 7/	37,185	1,204	17,755	56,144	51,200	916	1,935	1,443	1,026	1,065	783
	Per capita 8/										
	Pounds										
1965	244	6.9	31.7	282	294	5.8	5.7	3.4	4.7	10.8	5.0
1970	214	5.3	51.3	271	260	4.4	6.8	4.4	5.2	6.6	5.0
1971	207	5.3	56.5	269	255	4.3	7.0	4.7	5.4	6.3	5.0
1972	204	5.3	62.5	272	259	4.1	7.6	5.3	5.4	5.9	4.7
1973	195	5.5	67.9	269	253	4.0	7.9	5.7	5.3	5.7	4.3
1974	184	5.5	70.9	260	242	4.3	8.4	6.0	4.7	5.5	3.5
1975	182	5.6	78.7	266	241	4.5	7.9	6.2	4.7	5.1	3.6
1976 7/	175	5.7	83.6	264	241	4.3	9.0	6.7	4.8	5.0	3.7

Year	Frozen products				Dry products				
	Ice cream	Ice milk	Sherbet	Other	Mello-rine	Whole milk	Nonfat dry milk	Butter-milk	Whey 9/
	Million pounds								
	Total								
1965	3,634	1,270	295	39	255	61	931	79	113
1970	3,656	1,577	318	40	249	43	960	51	294
1971	3,676	1,582	317	47	232	32	958	55	319
1972	3,685	1,599	325	53	218	24	853	48	377
1973	3,714	1,604	346	70	191	21	1,056	39	384
1974	3,753	1,629	325	56	166	15	839	44	453
1975	4,015	1,643	316	66	144	16	668	44	477
1976 7/	3,926	1,569	322	64	112	33	734	39	528
	Per capita 8/								
	Pounds								
1965	18.8	6.6	1.5	0.2	1.3	0.3	4.8	0.4	0.6
1970	17.9	7.7	1.6	.2	1.2	.2	4.7	.3	1.5
1971	17.8	7.7	1.5	.2	1.1	.2	4.6	.3	1.6
1972	17.7	7.7	1.6	.3	1.0	.1	4.1	.2	1.8
1973	17.7	7.6	1.6	.3	.9	.1	5.0	.2	1.8
1974	17.8	7.7	1.5	.3	.8	.1	4.0	.2	2.1
1975	18.8	7.7	1.5	.3	.7	.1	3.1	.2	2.2
1976 7/	18.3	7.3	1.5	.3	.5	.2	3.4	.2	2.5

1/ Excludes milk used on farms where produced and distribution from USDA supplies; includes sales to the Armed Services for use in the United States. 2/ Includes milk and cream mixtures. 3/ Includes skim milk, buttermilk, and flavored milk drinks. 4/ Fat solids basis. 5/ Excludes cottage cheese. 6/ Includes full-skim American. 7/ Preliminary. 8/ Based on resident population, except fluid milk product sales--based on estimated population using fluid products from purchased sources. 9/ Includes modified whey products starting 1975.

drop as the very weak first quarter of 1977 (table 2). The year-to-year increase in retail butter prices was slightly larger than the rise in margarine prices but print butter sales may not have been much below last year. The major drop appears to have occurred in bulk usage. Even though apparent usage during the spring of 1976 may have been boosted by the anticipation of short supplies, use of butter as an ingredient probably has been smaller, possibly because of more ample supplies of milkfat in other products.

Although commercial disappearance of other-than-American types of cheese posted a 4-percent gain in April-May, these gains were offset by slightly lower sales of American cheese than a year ago. Improved consumer incomes and virtually unchanged retail cheese prices would be expected to allow an expansion in cheese sales but meat prices may be again becoming an important factor. Retail prices of both beef and pork were below a year ago this spring.

Fluid milk sales were just slightly below a year earlier this spring. In Federal Order markets, relatively slow gains in sales of lowfat milks during April-May did not offset declines in whole milk use. As was true during most of 1976, fluid sales in California were considerably stronger than in the Federal Order markets.

Among other products, commercial use of nonfat dry milk was very weak in April-May. The drop of more than a third from 1976 reflected the higher wholesale prices and continued shrinkage of the market. Creamed cottage cheese use this spring posted small gains but was still far below the peak years of the early 1970's. On the other hand, lowfat cottage cheese continues to rise in popularity. Frozen dessert sales ran below last year's levels with only ice milk posting small gains. However, ice cream sales were still higher than before the 1975 spurt.

Analysis of commercial disappearance data is made more difficult by the fact that the market anticipates continued surplus conditions this year, as opposed to an anticipated tight supply-demand balance a year ago. However, the sharp boost in demand during 1976 may be receding. This is evidenced by the weakness in sales under the relatively favorably price and income conditions thus far in 1977. If retail meat prices start to rise as expected, cheese sales may strengthen. Fluid milk sales are likely to stay close or just slightly above a year earlier, but the generally higher butter prices probably will keep butter usage below last year. Total commercial usage probably will return to year-earlier levels during the second half of the year.

1976 Per Capita Fluid Sales Slip

Per capita sales of all fluid milk and cream products in 1976 slipped about a half percent from 1975. In light of sharply higher average retail prices, these levels of fluid sales were fairly strong. Per capita use of beverage milks accounted for the decline as sales of cream and specialty items were good.

Last year generally saw the continuation of long-run trends (tables 5-7). Per person sales of whole milk dropped substantially while use of lowfat milk picked up. Sales of flavored items kept growing but per capita usage of skim milk was about the same. Among the beverage items, the stabilization of per person sales of buttermilk in recent years was the only major deviation from earlier trends. The shift from whole milk to lowfat milk has been the result of both price and much-publicized health considerations. The price differential has become more pronounced as more markets have offered lowfat milk in larger containers and as sales volume has expanded.

Per capita sales of yogurt last year continued their spectacular climb (figure 10). The average American ate more than twice as much in 1976 than only 5 years earlier. Yogurt sales have grown by attracting new users and expanding the amounts eaten by prior consumers. The introduction of new forms (frozen yogurt as the most recent example) has aided this trend.

Cream sales appeared to stem a long-term decline in the early 1970's and continued to creep upward in 1976. Per person sales of sour cream keep rising and use of plain cream items in 1976 were above 1971-72 levels. Per capita use of half-and-half in 1976 was just barely above 1975, but this was the first year-to-year gain since 1960. Greatly improved shelf life and assurance of quality have undoubtedly been important in reviving cream usage.

Commercial Cheese Stocks Heavy

Record-large commerical holdings of American cheese dominated a generally heavy commercial stocks picture on June 1. The 465 million pounds were up a fifth from the two prior years and 10 million pounds above the burdensome level of 1974. Given the expected milk supplies in coming months, these holdings probably were larger than the industry would prefer and were

Dairy product stocks

Item	June 1 1975	June 1 1976	June 1 1977
	Million pounds		
Commercial:			
Butter	36.8	65.2	59.1
American cheese	387.0	375.5	464.7
Other cheese	62.4	60.2	66.7
Nonfat dry milk	119.2	97.1	119.7
Milkfat	182.3	203.3	228.4
Solids-not-fat	257.0	252.8	301.9
Milk equivalent	5,242	5,767	6,545
Government:			
Butter	48.3	4.3	105.7
American cheese	3.8	.5	24.8
Nonfat dry milk	263.5	366.7	419.1
Milkfat	40.1	3.6	93.1
Solids-not-fat	254.7	352.9	410.9
Milk equivalent	1,035	93	2,429

Table 4--Sales of individual fluid products as a proportion of average daily fluid milk sales, selected Federal order markets, 1965, 1970, and 1972-76

Fluid items	1965	1970	1972	1973	1974	1975	1976
	Percent						
Whole milk 1/	83.7	74.1	69.8	67.6	65.2	63.2	61.2
Flavored whole milk	2.6	2.7	3.0	3.1	2.9	2.7	2.9
Total whole milk items	86.3	76.8	72.8	70.7	68.1	65.9	64.1
Low-fat (2%) milk	2/	13.8	17.1	18.5	20.4	22.1	25.0
Plain	2/	3.8	5.6	7.4	10.2	12.4	15.7
Solids added	2/	10.0	11.5	11.1	10.2	9.7	9.3
Skim milk	8.6	4.3	4.8	5.4	5.7	5.7	4.3
Plain	2.8	1.1	1.2	1.5	1.9	2.1	1.9
Solids added	5.9	3.2	3.6	3.9	3.8	3.6	2.4
Buttermilk 3/	2.0	2.2	2.4	2.4	2.4	2.3	2.5
Flavored milk drinks	.7	.9	1.0	1.1	1.5	1.8	2.1
Total skim and low-fat milk items 4/	11.3	21.2	25.2	27.4	30.0	31.9	33.9
Milk and cream mixtures	1.3	1.0	1.0	1.0	.9	.9	.9
Light cream	.4	.2	.1	.2	.2	.2	.2
Heavy cream	.3	.2	.2	.2	.2	.2	.2
Sour cream	.3	.3	.4	.4	.5	.5	.6
Total cream items 4/	.9	.7	.7	.8	.9	.9	1.0
Eggnog	.1	.2	.2	.2	.2	.2	.2
Total fluid milk and cream 4/	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1/ Includes whole milk equivalent of small quantity of concentrated milk.
2/ Included with skim milk.
3/ Includes small quantities of yogurt and cultured specialties. Yogurt was .13 percent in 1970, .21 percent in 1971, .29 percent in 1972, .33 percent in 1973, .36 percent in 1974, .44 percent in 1975, and .48 percent in 1976 of total fluid sales.
4/ Totals may not add due to rounding.

Table 5--Sales of individual beverage milk products, United States, 1954-76

Year	Plain whole milk	Low-fat milk	Skim milk	Filled and imitation milk	Flavored milk and drinks	Buttermilk	Total
				1,000 pounds			
1954	38,604,960	34,240	961,460	0	1,070,850	1,218,300	41,889,810
1955	39,915,940	50,030	1,046,750	0	1,146,650	1,236,580	43,395,950
1956	41,277,190	66,510	1,182,590	0	1,188,750	1,195,880	44,910,920
1957	42,217,840	80,540	1,351,600	0	1,162,660	1,184,010	45,996,650
1958	42,382,790	192,410	1,491,710	0	1,180,050	1,159,810	46,344,770
1959	42,548,300	284,540	1,648,330	0	1,189,280	1,151,930	46,822,380
1960	42,999,350	389,180	1,830,140	0	1,200,250	1,139,730	47,558,650
1961	42,606,330	600,960	1,977,610	0	1,278,160	1,092,480	47,555,540
1962	43,039,510	840,020	2,078,490	0	1,343,060	1,159,920	48,461,000
1963	43,749,260	1,170,690	2,227,840	0	1,489,730	1,171,890	49,809,410
1964	44,205,430	1,605,890	2,336,180	0	1,570,800	1,166,260	50,884,560
1965	44,512,450	2,056,550	2,368,030	0	1,646,860	1,155,750	51,739,640
1966	44,671,870	2,769,740	2,097,370	3,100	1,720,380	1,155,030	52,417,490
1967	43,218,510	3,550,750	2,077,110	45,600	1,662,250	1,139,350	51,693,570
1968	42,705,970	4,427,400	2,207,370	163,610	1,757,620	1,142,030	52,404,000
1969	41,934,850	5,396,130	2,320,250	153,620	1,748,690	1,146,670	52,700,210
1970	41,511,710	6,162,570	2,378,400	122,490	1,762,900	1,134,950	53,073,020
1971	40,595,920	7,287,010	2,345,370	108,580	1,870,720	1,149,350	53,356,950
1972	40,252,266	8,277,310	2,608,977	96,610	2,001,614	1,156,468	54,393,245
1973	38,849,170	9,189,215	2,949,038	81,339	2,044,324	1,075,229	54,188,315
1974	36,908,055	9,778,193	2,970,078	74,503	2,083,346	1,015,804	52,829,979
1975 1/	36,924,145	11,703,142	2,528,589	56,804	2,122,585	1,031,831	54,367,096
1976 1/	35,764,373	12,644,260	2,567,738	44,783	2,372,461	1,037,128	54,430,743

1/ Preliminary.

Table 6--Sales of individual cream and specialty products, United States, 1954-76

Year	Half-and-half	Light cream	Heavy cream	Sour cream and dips	Imitation sour cream	Yogurt	Eggnog	Total
				1,000 pounds				
1954	559,400	372,880	209,530	96,980		14,960	32,170	1,285,920
1955	604,820	351,750	205,860	100,520	0	16,850	36,250	1,316,050
1956	652,330	335,470	207,180	105,980	0	18,760	36,200	1,355,920
1957	687,560	304,070	202,100	113,490	0	21,160	38,080	1,366,460
1958	722,050	283,770	193,730	123,730	0	25,630	42,790	1,391,700
1959	748,800	264,130	183,740	136,810	0	38,330	45,850	1,417,600
1960	795,500	250,070	177,940	154,440	0	44,130	45,840	1,467,920
1961	805,960	231,360	169,190	163,310	0	48,580	46,080	1,464,480
1962	785,090	220,110	173,700	175,330	0	45,520	49,610	1,449,360
1963	773,140	192,740	167,720	184,280	0	50,240	49,420	1,417,540
1964	759,870	175,020	162,190	172,480	0	53,020	47,140	1,369,720
1965	749,180	162,420	157,210	178,750	0	60,640	48,770	1,356,970
1966	732,230	143,770	148,420	186,100	30	70,030	52,290	1,332,870
1967	687,040	125,000	138,620	182,520	730	90,230	50,440	1,274,580
1968	661,880	101,930	127,200	186,900	1,640	123,520	57,750	1,260,820
1969	632,170	90,500	113,450	189,830	1,680	168,960	56,920	1,253,510
1970	593,420	75,980	112,310	222,600	1,750	171,570	61,330	1,238,960
1971	560,910	66,610	112,490	251,320	1,910	236,290	82,640	1,312,170
1972	552,962	57,208	116,925	268,269	1,660	284,036	96,326	1,377,386
1973	559,614	80,470	121,576	276,126	N.A.	317,934	92,018	1,447,738
1974	528,760	84,107	118,559	315,840	N.A.	343,225	95,443	1,485,934
1975 1/	525,198	89,325	121,480	358,080	N.A.	462,652	81,900	1,638,635
1976 1/	538,229	77,664	131,742	369,087	N.A.	510,198	86,900	1,713,820

1/ Preliminary.

Table 7--Per capita sales of selected fluid milk items, 1954-76

Year	Plain whole milk	Lowfat milk	Skim milk	Flavored milk and drinks	Butter-milk	Yogurt	Eggnog	Half-and-half	Light cream	Heavy cream	Sour cream and dips
					Pounds						
1954	262.44	0.23	6.54	7.28	8.28	0.10	0.22	3.80	2.53	1.42	0.66
1955	264.69	.33	6.94	7.60	8.20	.11	.24	4.01	2.33	1.37	.67
1956	267.17	.43	7.65	7.69	7.74	.12	.23	4.22	2.17	1.34	.69
1957	266.02	.51	8.52	7.33	7.46	.13	.24	4.33	1.92	1.27	.72
1958	260.66	1.18	9.17	7.26	7.13	.16	.26	4.44	1.75	1.19	.76
1959	255.24	1.71	9.89	7.13	6.91	.23	.28	4.49	1.58	1.10	.82
1960	250.87	2.27	10.68	7.00	6.65	.26	.27	4.64	1.46	1.04	.90
1961	243.19	3.43	11.29	7.30	6.24	.28	.26	4.60	1.32	.97	.93
1962	240.85	4.70	11.63	7.52	6.49	.25	.28	4.39	1.23	.97	.98
1963	240.38	6.43	12.24	8.19	6.44	.28	.27	4.25	1.06	.92	1.01
1964	238.56	8.67	12.61	8.48	6.29	.29	.25	4.10	.94	.88	.93
1965	236.52	10.93	12.58	8.75	6.14	.32	.26	3.98	.86	.84	.95
1966	234.13	14.52	10.99	9.02	6.05	.37	.27	3.84	.75	.78	.98
1967	223.70	18.38	10.75	8.60	5.90	.47	.26	3.56	.65	.72	.94
1968	218.56	22.66	11.30	8.99	5.84	.63	.30	3.39	.52	.65	.96
1969	212.11	27.29	11.74	8.85	5.80	.85	.29	3.20	.46	.57	.96
1970	207.14	30.75	11.87	8.80	5.66	.86	.31	2.96	.38	.56	1.11
1971	199.88	35.88	11.55	9.21	5.66	1.16	.41	2.76	.33	.55	1.24
1972	196.07	40.32	12.71	9.75	5.63	1.38	.47	2.69	.28	.57	1.31
1973	187.50	44.35	14.23	9.87	5.19	1.53	.44	2.70	.39	.59	1.33
1974	176.68	46.81	14.22	9.97	4.86	1.64	.46	2.53	.40	.57	1.51
1975	175.29	55.56	12.00	10.08	4.90	2.20	.39	2.49	.42	.58	1.70
1976 1/	168.30	59.50	12.08	11.16	4.88	2.40	.41	2.53	.37	.62	1.74

1/ Preliminary.

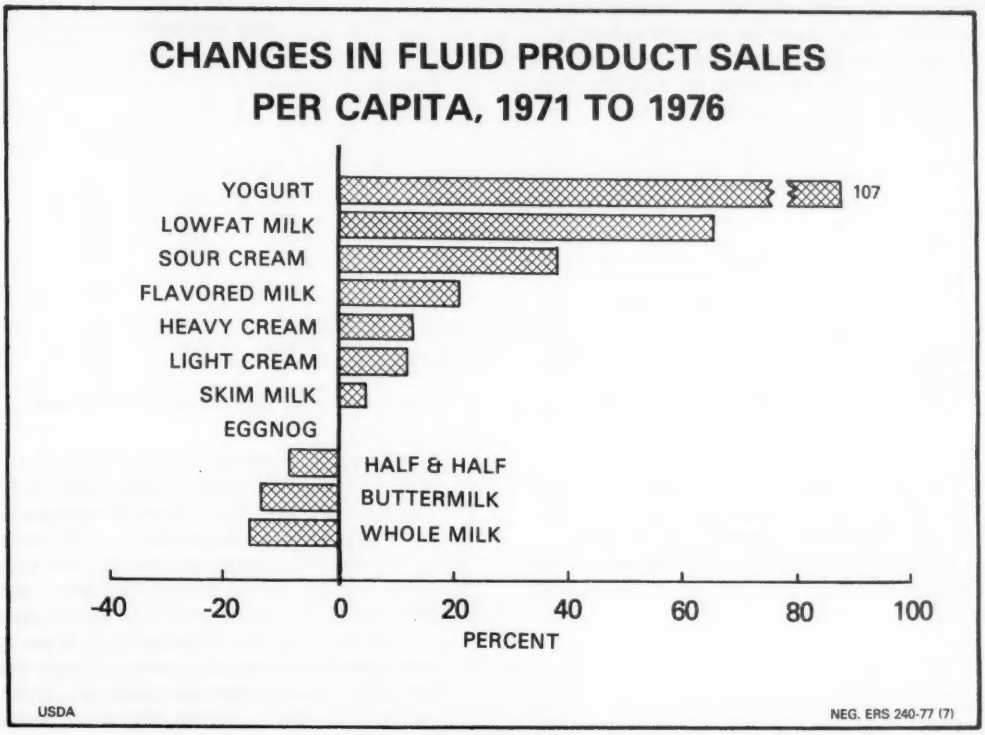

Figure 10

caused in part by problems (since alleviated) in moving sufficient quantities into government hands.

Commercial butter holdings were also fairly large, although down about a tenth from a year ago. Last year at this time, the demand for butter in storage was inflated by concern over possible tight conditions later in the year. In contrast, the industry expects continued surplus conditions later this year. In light of the current weak sales and heavy production, June 1 stocks appeared quite ample.

Manufacturers' stocks of nonfat dry milk on June 1 also loomed large relative to sales. These holdings were up a fifth from a year earlier but well below 1974.

Commercial holdings of milk fat on June 1 were an eighth greater than a year earlier while solids-not-fat holdings were a fifth larger, although neither was a record for that date. With heavy supply conditions in the foreseeable future, commercial interests probably will attempt to keep any further seasonal rises as small as possible. This is especially true for American cheese.

CCC Removals Heavy

The combination of heavy milk output and slow sales led to large purchases under the price support program this spring. Net removals during the second quarter were equivalent to 2.6 billion pounds of milk (fat solids basis), more than equaling the flush season removals of 1973 through 1976 combined and similar to the levels of 1971 and 1972. Added to the large purchases during the first quarter, this brought the first half total to 4.7 billion pounds milk equivalent, the largest since 1971.

USDA dairy purchases[1]

Item	January-June		
	1976	1977	Change
	Million pounds	*Million pounds*	*Percent*
Butter	.4	180.1	*
American cheese	4.7	102.7	*
Nonfat dry milk	63.2	224.8	+255.7
Evaporated milk	13.7	5.1	-62.8
Milk equivalent	84	4,745	*

[1] Delivery basis. *More than 1,000.

Most of the milk equivalent total was butter, partially because of the relative ease of clearing surplus milk as butter-powder. However, the 101 million pounds of American cheese purchased during the first half was the most purchased in that period since 1962.

Net removals of nonfat dry milk in January-June were also heavy—about triple the year-earlier level. However, this was only about half the level of 1975. In addition, proportionally less nonfat dry milk than butter was purchased for the first time since 1973.

Uncommitted CCC stocks

Item	June 30	
	1976	1977
	Million pounds	
Butter (bulk)	---	159.8
American cheese	---	52.4
Nonfat dry milk	392.8	524.3

Given the expected picture for milk production and commercial use, government purchases likely will be large until fall. Substantial quantities of all three products probably will be bought, although the amount of milk that can be removed in the form of cheese is still uncertain.

FOREIGN DAIRY TRADE AND TRENDS

Imports About the Same: Exports Slip

Thus far in 1977, U.S. imports of dairy products were slightly higher although they were down slightly from a year ago during April-May. Even though domestic milk supplies are heavy, relatively larger rises from a year ago in domestic wholesale prices than world market prices tended to hold up imports. Cheese imports this spring were about the same but slightly less of other products was imported (table 8).

April-May imports of cheese subject to quotas were less than a year earlier, particularly the less-than-"pricebreak" types. The 5-cents-per-pound increase in the pricebreak level for cheese shipped after May 5 may bring more of the cheese imports under quota. Nonquota cheese types were imported in slightly larger amounts but these increases just offset the declines in the quota categories.

Imports of many other items ran below a year ago in April-May. Among the high-fat products, more butterfat mixtures and some "ice cream" was imported but less butter and frozen cream. During the first 5 months of 1977, all these products but frozen cream were imported in significantly larger quantities but some are now approaching their calendar year quotas. Other quota products generally were imported in larger amounts than last year. Casein and lactose imports (both are nonquota items) were up sharply from April-May 1976.

U.S. dairy trade
(milk equivalent)

Year and quarters	Imports		Exports	Shipments[1]
	Cheese	Other		
	Million pounds			
1976				
1st	310	112	132	140
2nd	302	70	145	129
3rd	389	29	124	136
4th	682	43	101	114
Year[2]	1,683	255	502	520
1977				
1st	343	139	107	123
Apr.-May	184	34	80	124

[1] To U.S. territories. [2] May not add due to rounding.

More American cheese and lactose were exported this spring but commercial exports of other products trailed 1976 levels during April-May. The milk equivalent total was less than 0.1 billion pounds, down a fifth from a year ago. Most of the decline was due to lower exports of canned milk and dry whole milk. Exports of nonfat dry milk (mostly donations under P.L. 480) continued to run in the range of 5 to 10 million pounds per month but were considerably less than during the prior year.

More dairy products than last year were shipped to U.S. territories during April-May. Shipments totaled more than 0.1 billion pounds milk equivalent with increases in butter and cheese outweighing declines in canned milk and dry whole milk. In addition, more nonfat dry milk was shipped.

In coming months, the net additions by foreign trade to the domestic market probably will be similar to a year ago. With our import quota system and the expected relationship between domestic and world trading prices, little change in either imports or exports and shipments are indicated.

World Dairy Markets Still Glutted

Surplus conditions in world dairy markets this spring were little different from a year earlier. Improved cheese usage and restraint with regard to providing additional policy stimulus to milk output helped but world supplies were still very heavy with no improvement in sight.

EC milk deliveries in early spring were close to a year ago. However, milk output in the EC this summer probably will run well above the drought-reduced levels of 1976. Elsewhere in West Europe, Scandinavian production was somewhat lower but both Switzerland and Austria produced considerably more milk than a year earlier.

Milk production this spring continued lower in Canada but likely will move closer to year-earlier levels this summer. Australian output also remained below last year. Although the season drawing to a close in New Zealand was strong, late-season production slipped

Table 8--Dairy products: U.S. imports, quota and non-quota, total 1976, and January-May, 1976-77 1/

Product	Calendar year quota	1976 imports	May			Cumulative, January-May		
			1976	1977	1977 as a % of 1976	1976	1977	1977 as a % of 1976
	Thou. lb.	Thou. lb.	Thou. lb.	Thou. lb.	Pct.	Thou. lb.	Thou. lb.	Pct.
Cheese, quota types								
American-Cheddar	10,037.5	7,984	15	47	313	956	2,579	270
-Other	6,096.6	6,241	56	---	---	743	662	89
Italian-Original loaves	11,500.1	11,060	767	591	77	4,394	4,607	105
-Other	1,494.0	1,276	7	54	771	456	498	109
Edam and Gouda-Natural	9,200.4	(9,023)	(749)	(426)	(57)	(2,646)	(2,244)	(85)
-Processed	3,151.0	( )	( )	( )	( )	( )	( )	( )
Blue Mold	5,017.0	4,593	319	265	83	1,171	1,054	90
Swiss-Emmenthaler, -$1.05 *	20,420.0	12,435	1,197	703	59	5,208	3,633	70
-Gruyere-process, -$1.05 *	11,242.0	8,690	315	428	136	2,195	1,814	83
Other-Over 0.5% fat, -$1.05 *	40,730.0	31,116	1,328	896	67	4,331	3,955	91
-Under 0.5% fat	8,901.0	4,741	204	164	80	1,486	275	19
Total	127,789.6	97,159	4,958	3,573	72	23,585	21,322	90
Cheese, non-quota types								
Swiss-Emmenthaler, $1.05 + *		48,499	2,912	3,331	114	16,401	17,716	108
-Gruyere-process, $1.05 + *		6,741	429	256	60	1,964	1,990	101
Other, $1.05 + *		34,405	2,436	2,409	99	11,568	13,141	114
Pecorino		16,728	633	1,617	255	6,948	7,808	112
Roquefort		1,560	60	48	80	620	771	124
Other 2/		2,053	166	134	81	614	917	149
Total		109,985	6,637	7,794	117	38,115	42,344	111
Other quota products								
Butter	707.0	528	55	40	73	253	296	117
Butteroil	1,200.0	1,200	---	---	---	1,200	1,200	100
Butterfat mixtures	2,580.0	2,468	267	381	143	951	2,393	252
Ice cream	3,377.3	---	---	448	---	---	2,767	---
Frozen cream	12,540.0	12,964	1,637	187	11	8,232	7,316	89
Nonfat dry milk	1,807.0	1,807	198	99	50	1,013	839	83
Dried buttermilk	496.0	444	---	---	---	137	179	131
Evaporated milk	1,312.0	28	---	---	---	1	2	200
Condensed milk	4,079.0	639	19	---	---	123	346	281
Chocolate crumb-Regular	17,000.0	8,484	80	238	298	1,743	1,254	72
-Lowfat	4,680.0	2,140	280	---	---	420	40	10
Animal feed with milk solids	16,300.0	12,226	240	586	244	3,530	5,884	167
Non-quota products								
Casein		112,141	7,617	12,945	170	40,009	60,450	151
Lactose		1,268	22	221	3/	366	744	203
Milk equivalent, fat solids basis total all products	1,305,620	1,938,131	118,029	102,829	87	651,537	700,729	108

1/ Preliminary. 2/ Gjetost, Bryndza, Gammelost and Noekkelost, and Goya. 3/ More than 1,000.
*Price break effective May 5, 1977.

Table 9--Dairy products: U.S. imports, 1966-76

Product	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976 1/
					Thousand pounds						
Cheese											
American-Cheddar	4,178	4,967	9,841	9,606	9,720	9,324	9,516	20,010	106,999	10,600	7,984
-Other	45,991	55,230	5,860	6,034	5,969	7,624	5,957	8,430	5,098	6,033	6,241
Total American	50,169	60,197	15,701	15,640	15,689	16,948	15,473	28,440	112,097	16,633	14,225
Italian-Original loaves	7,776	8,412	8,389	10,547	6,617	6,458	10,802	10,524	8,985	10,173	11,060
-Other	450	1,494	1,853	1,742	674	852	1,350	1,517	1,185	1,232	1,276
Total Italian	8,226	9,906	10,242	12,289	7,291	7,310	12,152	12,041	10,170	11,405	12,336
Edam and Gouda-Natural	N.A.	N.A.	8,626	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
-Processed	N.A.	N.A.	12,760	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Total Edam and Gouda	10,899	11,615	21,386	11,457	11,799	10,127	10,146	11,596	9,373	9,207	9,023
Blue Mold	5,177	4,787	4,822	4,878	4,766	4,485	4,434	5,994	5,016	4,564	4,593
Swiss-Emmenthaler, "pricebreak" and over 2/	7,656	7,450	7,990	16,322	22,762	21,809	30,366	24,725	51,158	36,279	48,498
-Emmenthaler, under "pricebreak"	7,095	6,905	30,861	3,786	3,592	2,508	3,206	24,875	12,647	10,473	12,435
-Gruyere-process, "pricebreak" and over	4,118	3,558	5,724	9,401	10,800	8,937	9,882	5,703	9,018	5,322	6,741
-Gruyere-process, under "pricebreak"	5,005	6,277	14,253	3,248	3,149	2,662	2,904	9,936	6,285	6,829	8,690
Total Swiss	23,874	24,190	58,828	32,757	40,303	35,916	46,358	65,239	79,108	58,902	76,364
Other, "pricebreak" and over	4,596	5,377	7,820	12,701	22,631	18,812	31,820	21,241	35,853	26,155	34,405
Other, under "pricebreak"	13,472	17,618	31,291	23,541	23,371	14,849	23,680	52,477	35,478	25,832	31,116
Other, low-fat	---	---	268	8,932	10,752	7,025	8,397	11,965	8,616	6,667	4,741
Total Other	18,068	22,995	39,379	45,174	56,754	40,686	63,897	85,683	79,947	58,654	70,262
Pecorino	15,761	15,750	17,352	19,227	20,621	16,566	22,976	17,215	16,465	17,114	16,728
Roquefort	1,820	1,808	1,948	2,061	2,063	1,671	2,543	2,126	1,439	1,392	1,560
Gjetost	257	254	330	321	413	397	438	454	473	512	517
Bryndza	86	82	101	127	156	257	322	309	679	400	543
Gammelost and Noekkelost	1,099	195	335	182	256	473	748	698	716	628	627
Goya	---	---	---	---	761	1,039	3	6	41	18	365
Other products											
Butter	667	677	739	678	3/747	628	714	55,574	450	526	528
Butteroil	1,200	1,200	1,200	1,200	1,200	1,200	1,200	23,800	1,200	1,200	1,200
Butterfat mixtures	105,626	100,548	1,882	4/2,741	2,398	2,572	2,430	2,565	---	1,828	2,468
Frozen cream	14,957	11,915	12,607	14,748	11,062	11,235	12,600	12,540	12,406	12,353	12,964
Evaporated milk	611	1,311	4,908	1,313	1,236	1,299	94	1,209	1,214	455	28
Condensed milk	2,678	4,079	4,854	4,058	1,506	1,670	2,345	1,419	1,393	445	639
Chocolate crumb-Regular	6,500	21,544	45,337	18,603	15,260	12,803	9,652	5,624	5,859	2,323	8,484
-Lowfat	---	---	---	478	15,944	4,185	3,171	176	---	2,086	2,140
Total chocolate crumb	6,500	21,544	45,337	19,081	31,204	16,988	12,823	5,800	5,859	4,409	10,624
Ice cream	---	---	---	20,263	62,689	2,549	1,375	---	---	---	---
Dried products											
Whole milk	7	3	7	7	3	10	---	---	17	7	9
Malted milk	1	1	1	---	1	2	6	13	10	---	2
Buttermilk	401	158	536	174	421	355	594	270	137	783	444
Skim milk	2,835	924	1,747	1,914	1,759	2,136	1,602	266,564	115,065	2,465	1,807
Casein	107,906	99,670	116,100	116,107	135,288	105,939	105,401	112,828	112,889	58,444	112,141
Lactose	---	596	374	4,187	4,222	1,652	1,540	1,356	1,310	5,501	1,267
Animal feed 5/	---	---	---	9,965	27,297	11,812	10,356	15,793	9,009	15,795	12,226
					Million pounds						
Milk equivalent, fat solids basis, total all products	2,791	2,908	1,780	1,621	1,878	1,356	1,694	3,859	2,923	1,669	1,938

1/ Preliminary. 2/ Pricebreak of 47 cents changed to $.62 on June 3, 1972; to $.69 on March 15, 1973; to $.72 on August 29, 1973; to $.78 on April 1, 1974; to $.84 on January 16, 1975; to $.86 on April 9, 1975; to $.92 on October 16, 1975; to $.98 on April 14, 1976; and $1.00 on October 19, 1976. 3/ Includes 40,400 pounds not subject to quota. 4/ Excludes 1.7 million pounds in retail packages reported by the Bureau of Customs. 5/ Containing milk products.

below a year ago. The USSR, the world's largest producing country, is expected to have higher milk output in 1977.

Stronger demand has resulted in greater cheese production in most West European countries. The increases in cheese output have generally found a market as cheese stocks were similar to 1976. Oceanic cheese production this spring was less than a year ago but Canada produced more.

Butter production this spring was fairly uniformly below a year earlier in the major trading countries. In the EC, stepped-up exports and lower output allowed intervention stocks to slip below a year earlier by the end of May, despite weaker sales. Nonfat dry milk production was also generally lower. This was partially because of larger casein production and more feeding of liquid skim milk in some countries, although New Zealand was diverting less skim milk into casein than earlier. EC intervention stocks of nonfat dry milk have held at about 0.9 million metric tons (2 billion pounds) since the end of February and were down almost a third from 1976 on June 1.

Table 10.--U.S. Dairy Situation at a Glance

Item	Unit or base period	1975	1976					1977		
		May	April	May	June	July	Year	April	May	June
Production and cow numbers:										
Total milk	Mil. lb.	10,773	10,480	11,108	10,816	10,453	120,356	10,741	11,295	11,103
Milk per cow	Lb.	966	948	1,006	979	947	10,893	977	1,029	1,013
Number of milk cows	Thou.	11,156	11,058	11,047	11,044	11,041	11,049	10,989	10,978	10,963
Prices received by farmers:										
All milk, sold to plants, 100 pounds	Dol.	8.07	9.40	9.25	9.14	9.43	9.66	9.43	9.34	9.37
Percentage of parity 1/	Pct.	76	78	80	80	82	80	74	75	75
Manufacturing grade milk, 100 pounds	Dol.	7.07	8.45	8.33	8.32	8.62	8.56	8.66	8.60	8.55
Parity equivalent	Dol.	9.39	10.25	10.08	10.25	10.25	10.18	11.01	11.01	11.01
Fat content	Pct.	3.60	3.62	3.58	3.52	3.50	3.65	3.62	3.55	3.51
Minnesota-Wisconsin (3.5% fat), 100 pounds	Dol.	7.02	8.44	8.30	8.32	8.71	8.48	8.60	8.62	8.60
Milk eligible for fluid market, 100 pounds	Dol.	8.33	9.63	9.49	9.36	9.64	9.93	9.62	9.53	9.58
Price ratios and dairy ration values:										
Milk-feed	Lb.	1.30	1.53	1.49	1.43	1.44	1.53	1.46	1.43	1.49
Manufacturing grade milk-hog	Lb.	.16	.18	.18	.17	.18	.20	.24	.21	.20
Manufacturing grade milk-beef cattle	Lb.	.19	.22	.22	.23	.26	.25	.25	.24	.25
Value of concentrate ration fed milk cows	Dol.	6.20	6.13	6.22	6.39	6.53	6.30	6.47	6.54	6.29
Farm cash receipts from dairy products	Mil. dol.	855	962	1,012	969	968	11,426	996	1,042	1,006
Production of factory products:										
Creamery butter	Mil. lb.	101.9	87.0	91.4	83.9	71.5	978.6	100.4	103.9	
American cheese, whole milk	Mil. lb.	170.3	189.7	207.8	209.7	189.4	2,062.4	193.8	211.9	
Cheese, other than American	Mil. lb.	100.7	105.0	107.7	115.7	107.2	1,274.1	108.1	114.6	
Canned milk, unskimmed	Mil. lb.	94.7	90.4	96.6	92.3	84.9	895.5	81.6	85.7	
Dry whole milk	Mil. lb.	7.1	7.3	9.1	8.0	6.3	78.1	6.3	7.6	
Frozen products 2/	Mil. gal.	113.6	101.2	103.0	122.0	121.4	1,152.7	98.0	104.3	
Creamed cottage cheese	Mil. lb.	79.0	75.8	76.4	78.2	75.9	874.6	77.3	78.2	
Total whole milk equivalent 3/	Mil. lb.	5,975	5,690	6,070	6,238	5,715	63,521	5,992	6,465	
Nonfat dry milk, human use	Mil. lb.	128.7	91.6	105.5	108.1	96.3	926.2	107.1	119.6	
Wholesale prices:										
Butter, 92-score, Chicago, pound	Ct.	69.2	89.5	89.9	95.0	105.7	92.0	100.1	100.7	100.7
Cheese, American (40-pound blocks), f.o.b. Wisconsin assembling points, pound	Ct.	80.6	96.9	94.9	95.5	100.1	96.3	97.9	97.9	97.4
Evaporated milk, case (mid-point of range)	Dol.	12.08	13.78	13.28	13.75	13.79	13.67	14.45	13.98	
Dry whole milk, pound	Ct.	65.0	78.6	77.9	78.1	79.6	79.4	79.0	79.8	
Nonfat dry milk, pound	Ct.	60.5	63.1	62.8	62.8	63.2	63.5	65.3	67.7	
Dairy products and ice cream index (BLS)	1967=100	149.6	167.7	167.1	167.0	170.0	168.4	173.6	174.2	174.3
Retail prices (BLS):										
Milk, fresh, grocery, half-gallon	Ct.	77.4	82.6	82.0	82.2	81.9	82.7	83.4	83.5	
Evaporated milk, 14½-ounce can	Ct.	30.4	34.1	34.1	34.2	34.3	34.3	35.4	36.0	
Cheese, American, processed, sliced, ½-pound package	Ct.	74.2	84.9	85.7	85.8	85.8	86.5	84.8	85.7	
Butter, pound	Ct.	95.3	119.8	120.6	121.1	125.9	126.1	129.2	133.8	
Ice cream, half-gallon	Ct.	121.5	125.8	125.3	126.7	125.2	127.1	130.2	134.7	
Dairy products index	1967=100	153.6	167.9	167.4	167.9	168.0	169.3	171.4	173.1	
All foods index	1967=100	171.8	179.2	179.9	180.9	182.1	180.8	190.9	191.7	
Margarine, colored, pound	Ct.	63.4	51.7	51.6	51.1	51.1	52.6	53.9	56.1	
Stocks, end of month:										
Creamery butter	Mil. lb.	85.1	44.0	69.5	80.9	83.0	---	128.5	164.9	
Cheese, total 4/	Mil. lb.	453.2	393.7	436.1	483.7	509.0	---	511.5	556.2	
Canned milk, unskimmed	Mil. lb.	84.2	76.8	104.6	125.5	143.3	---	66.4	101.5	
Dry whole milk	Mil. lb.	7.5	9.2	10.7	10.8	11.8	---	10.1	8.7	
Total whole milk equivalent 5/	Mil. lb.	6,277	4,846	5,860	6,596	6,928	---	7,725	8,974	
Nonfat dry milk	Mil. lb.	382.7	443.1	463.8	481.9	498.8	---	520.9	538.8	
Commercial disappearance:										
Creamery butter	Mil. lb.	78.1	74.6	66.5	72.8	70.0	919.0	65.3	55.2	
Cheese, American	Mil. lb.	150.0	164.4	164.8	163.9	160.3	1,934.5	162.9	159.1	
Cheese, other than American	Mil. lb.	108.6	115.7	118.8	125.2	120.8	1,460.7	119.8	123.2	
Canned milk, unskimmed	Mil. lb.	68.9	67.5	67.1	70.2	66.2	862.4	77.3	49.0	
Milk in all products	Mil. lb.	9,804	9,753	9,949	9,940	9,955	116,397	9,560	9,540	
Nonfat dry milk	Mil. lb.	44.1	66.3	67.5	60.3	70.2	724.0	42.6	43.6	
USDA net removals:										
Butter	Mil. lb.	21.8	.4	---	---	---	39.4	25.9	43.7	35.1
Cheddar cheese	Mil. lb.	10.6	.5	1.1	3.1	6.2	38.0	6.6	14.0	23.2
Nonfat dry milk	Mil. lb.	73.9	5.6	16.0	22.5	27.6	157.1	37.3	62.8	78.2
Evaporated milk	Mil. lb.	1.9	3.5	1.7	1.3	1.0	21.8	1.0	1.6	.6
Total whole milk equivalent	Mil. lb.	559	20	15	33	64	1,236	602	1,043	954
Fluid sales, change from year earlier: 6/										
Whole milk	Pct.	-1.4	-3.0	-2.3	-3.7	-2.7	-2.8	-4.2	-3.1	
Low-fat and skim milk	Pct.	+10.1	+6.2	+7.1	+5.8	+5.6	+7.1	+4.7	+7.4	
Total fluid milk	Pct.	+2.1	+.1	+.7	-.7	+.2	+.2	-1.0	+.4	
Cream and cream mixtures	Pct.	+14.6	+9.2	-3.2	-1.3	+1.4	+2.5	-5.0	N.A.	

1/ Seasonally adjusted price as percentage of parity price.
2/ Ice cream, ice milk, and sherbet.
3/ Includes manufactured products for which current monthly series are available.
4/ Natural, plus process American cheese held by CCC.
5/ Excludes cream and bulk condensed milk.
6/ Daily average sales in Federal and State Marketing areas.
N.A. = Not available.

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